REMARKS

In response to the Final Office Action mailed on April 23, 2004, Applicants respectfully request reconsideration. Applicants would like to thank the Examiner for the interview held on June 21, 2004 to discuss distinctions between the pending claims and cited prior art. The following discussion of patentablility and submitted amendment are consistent with this interview. Allowance of the pending claims is respectfully requested.

Applicants have amended claims 1, 4, 9, 14, 18, 19, 22, 27, 38, 39, and 41 in accordance with the Examiner's interview and are appreciative of the Examiner's efforts to further prosecution of the present application. None of the amendments should be interpreted as acquiescing to the Examiner's rejection. Applicants reserve the right to file such claims in a continuation application. Claims 13, 15, 31, and 33 are being cancelled. The following remarks address the patentability of pending claims.

Rejection of Originally Submitted Claim 1 under 35 U.S.C. § 102(e)

The Examiner has rejected originally submitted claim 1 under 35 U.S.C. § 102(e) as being anticipated by Simonoff (U.S. Patent 6,463,460). The Office Action likens elements in Simonoff to those in claim 1 to reject the claimed invention.

Discussion of Cited Prior Art

In general, Simonoff discloses a White Board system permitting a plurality of users to collaborate with one another irrespective of a remote user's hardware platform. Each of the users generate or create objects that are transferred to a server that, in turn, forwards the user generated objects amongst each other based on an assigned identifier. Based on forwarding of user-generated objects, each of the users of the white board system can view a common video display even though the users are located remotely with respect to each other.

A brief description of problems associated with conventional collaboration systems will help to illustrate distinctions as well as advantages of embodiments of the invention over the prior art. These were discussed in the background section of the subject application and are again discussed below.

By way of example, consider a typical object oriented client/server collaboration software system. In such a system, the client software (i.e. client collaboration software in this example) creates objects and assigns properties to the objects including the individual object identification for that object. The client software might generate the object identification for a particular object based on an algorithm that ensures that the object identification is unique with respect to that client and not necessarily other objects created by other users in the collaboration system. However, once a given client collaboration software forwards objects which it creates in this manner to the server collaboration software which maintains the objects in the object repository (e.g., an object database), there is no guarantee that the object identifications created by the given client will be unique in relation to all other objects created by all other clients involved in collaboration session. It may be the case, for example, that a second client generates a second object having the same object identification as the first object created by the first client. When the second client transfers the second object to the collaboration server for placement into the object database, the first and second objects will each contain the same object identification. This may cause the server collaboration software to be confused as to which object is to be obtained, manipulated or otherwise operate upon when a client refers to the object identification shared by two or more objects in the object database.

Summary of an Embodiment of the Invention

Embodiments of the invention overcome such deficiencies and support techniques allowing for the creation and management of objects so that each

contain a unique object identification. For example, embodiments of the invention provide a high degree of certainty that an object identification for an object, as generated by a server, will be unique across all clients and/or servers that may require access to the object. In this manner, clients can create objects that may always be differentiated from each other based on their object identifications. For example, in the system of the invention, during the process of creating uniquely identify the objects, the system of the invention also provides a technique to ensure that the server properly creates and manages the precise set of objects the client provides the server. In other words, during the process of creating a set of objects having a unique object identification across all clients in the server, the system of the invention also provides techniques used by the client to ensure that the server has properly accounted for and created (e.g., in the object database within the server) precisely the set of objects which the client initially provided to the server. For instance, in a specific application, the client creates one or more objects and sends a corresponding local object specification to a server. The server generates a global object specification based on the received local object specification and sends it to the client. The client compares the local object specification (as sent to the server) to the global object specification received from the server. The client ensures that the server created the proper set of objects by checking that the global object specification (as received form the server) includes equivalent object definitions as in the local object specification sent to the server. In this manner, the client may be assured that the server will distribute an exact corresponding set of uniquely identifies objects to other clients, for example, which may be participating in a collaboration session.

Patentability of Claim 1 and Related Claims

Applicant respectfully submits that the invention as recited in now amended claim 1 further distinguishes the invention over the cited prior art than the originally submitted claim 1, which Applicants believe itself included

patentable distinctions over the cited prior art. Thus, claim 1 is now further patentably distinct over the cited prior art.

Consistent with the discussion at the Examiner's interview, claim 1 recites, from the client, "providing a local object specification to a server." Further, claim 1 recites, at the client, "receiving a global object specification from the server, the global object specification including at least one global object definition having a unique global object identification." Applicants have added the limitation "checking whether the global object specification received from the server contains a corresponding global object definition for each respective local object defined in the local object specification provided to the server" to more particularly illustrate that the server performs a "check" process based on the local object specification provided to the server and the global object specification received from the server. This new limitation in amended claim 1 was extracted from claim 4 so there is no new matter requiring the Examiner to perform another search. Applicants feel that the limitations incorporating all the limitations of claim 4 would unduly narrow what Applicants are entitled for claim coverage and that original claim 1 should have been allowed in the last Office Action.

Amended claim 1 is notably distinct because Simonoff does not perform the "check" or verification that the global object received from the server includes the same objects as provided in the local object specification by the client. One purpose of performing this check process is to ensure that the global object specification from the server includes the same information as the local object specification. In other words, the client checks whether the server properly receives the local object specification. Thus, if the server transmits the global object specification to other clients also in communication with the server, the client "providing the local object specification to the server" can be assured that the server relays the other clients the proper global object specification.

Amended (and object to) claim 4 is directed towards providing an error indication to the server if the "check" fails. Thus, claim 1 is consistent with objected to claim 4.

For the reasons stated above, Applicants submit that claim 1 is patentably distinct and advantageous over the cited prior art. Accordingly, Applicants respectfully request allowance of claim 1 as well as corresponding dependent claims 2-8, 48, 49, as well as now dependent claim 41-43.

Claim 19 as well as dependent claims 20-26 include similar patentable distinctions as claim 1 and should be allowable for applicable reasons.

Claim 38 includes similar patentable distinctions as claim 1 and should be allowable for applicable reasons.

Note that claims 18 and 37 have been allowed by the Examiner.

Patentability of Claims 44-47

Previously added claim 44 includes distinguishing limitations over Simonoff. This claim has some similar limitations as amended claim 1. For example, claim 44 recites, "from the client computer system: providing a local object specification to a server, the local object specification including at least one local object definition generated by the client computer system." Claim 44 also recites, "at the client computer system: receiving a global object specification from the server, the global object specification including at least one global object definition having a unique global object identification, wherein the server generates the unique global object identification associated with the at least one global object specification, the unique global object identification generated by the server being different than a client generated identifier provided with the local object specification." In other words, the client generates a local object specification with a client-generated identifier and the server sends the global object specification back with a different identifier. One purpose of this embodiment is to ensure that an object specification generated by one of multiple possible clients has a unique identifier associated with it. For example, claim 44

recites that the server generates a unique global ID associated with the global object specification, which is different than the identifier provided with the local object specification from the client. Thus, according to claim 44, the server is responsible for generating a unique ID for global objects. In contradistinction, Simonoff generates unique IDs for each client in the collaborative system. Creating unique of object identifiers is possible in Simonoff because the clients generate global object IDs generated by the whiteboard clients is based on their assigned unique IDs. Thus, the burden of ensuring uniqueness in Simonoff is distributed to the clients based on use of their unique IDs. According to the claimed invention, the server (a centralized communication device) creates the unique global identifiers, if necessary, for objects created by corresponding one or more clients.

Further, note that claim 44 recites "generating a signal indicating whether the global object specification and the local object specification include at least one matching object definition" similar to claim 1. This means that the signal is generated based on processing of the local object specification sent by the client to the server with respect to the global object specification received from the server. Applicants respectfully submit that Simonoff has no equivalent procedure anticipating this step as discussed above in claim 1.

For the reasons stated above, Applicants submit that claim 44 is patentably distinct and advantageous over the cited prior art. Accordingly, Applicants respectfully request allowance of claim 44 as well as corresponding dependent claims 45-47.

Note dependent claim 45 further recites "at the client computer system, comparing the at least one local object definition in the local object specification to the at least one global object definition in the global object specification to identify whether the server properly created the global object specification." In other words, if the client determines that the local and global object specifications include the same objects, it can be assured that the server properly created the global object specification, which is potentially sent to other clients in

communication with the server. Applicants respectfully submit that Simonoff also does not perform this recited processing step.

Claim 46 includes similar limitations as claim 1 and is allowable for similar reasons.

Claim 47 includes similar limitations to objected claim 4.

Patentability of Claim 9 and Related Claims

Applicants have amended claim 9 to include limitations of objected to claim 15. Thus, Applicants submit that claim 9 is now in allowable condition. Dependent claims 10-12, 14, 16-17, and 50 should also be allowable for the same reason because they depend from claim 9.

Patentability of Claim 27 and Related Claims

Applicants have amended claim 27 to include limitations of objected to claim 33. Thus, Applicants submit that claim 27 is now in allowable condition. Dependent claims 28-30, 32, and 34-36 should also be allowable for the same reason because they depend from claim 27.

Patentability of Claim 39 and Related Claims

Applicants have amended claim 39 to include limitations of objected to claim 15. Thus, Applicants submit that claim 39 is now in allowable condition. Dependent claim 40 should also be allowable for the same reason because it depends from claim 39.

Patentability of Claim 41 and Related Claims

Applicants have amended claim 41 to depend from claim 1. Thus, Applicants submit that claim 41 as well as claims 42 and 43 are allowable.

CONCLUSION

In view of the foregoing remarks, Applicants submit that the pending claims as well as newly added claims are in condition for allowance. A Notice to this affect is respectfully requested. If the Examiner believes, after reviewing this Response, that the pending claims are not in condition for allowance, the Examiner is respectfully requested to call the Applicant(s) Representative at the number below.

Applicants hereby petition for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-0901.

If the enclosed papers or fees are considered incomplete, the Patent Office is respectfully request(s)ed to contact the undersigned Attorney at (508) 366-9600, in Westborough, Massachusetts.

Respectfully submitted,

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